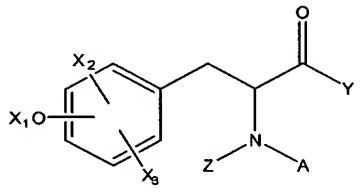
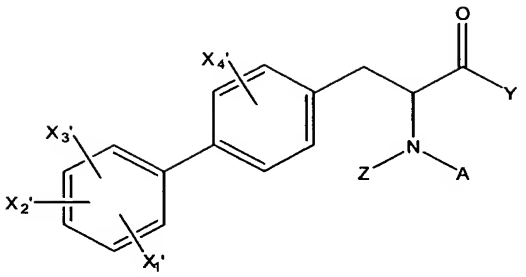
CLAIMS:

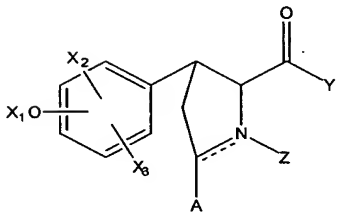
1. A compound of the formula I, II or III:



I



II

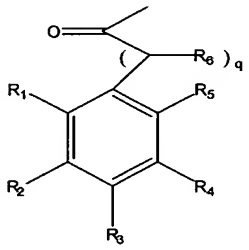


III

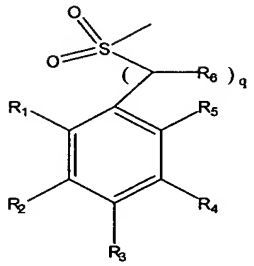
wherein

Z is H or lower alkyl;

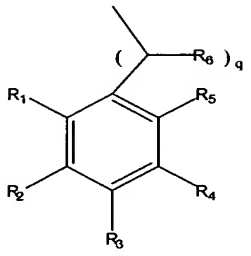
A has the structure:

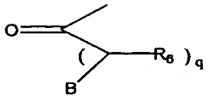


or



or





or

in which

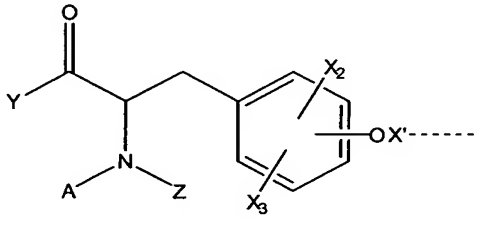
B is cyanoalkyl, a carbocycle or a heterocycle optionally substituted with one or more R_1 substituents;

q is 0-3;

R_1, R_2, R_3, R_4, R_5 and R_6 independently are hydrogen, alkyl, amino, alkylamino, dialkylamino, nitro, urea, cyano, thio, alkylthio, hydroxy, alkoxy, alkoxyalkyl, alkoxycarbonyl, alkoxycarbonylamino, aryloxycarbonylamino, alkylsulfinyl, sulfonyl, alkylsulfonyl, aralkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, alkanoyl, alkanoylamino, cycloalkanoylamino, aryl, arylalkyl, halogen, or alkylphosphonyl, and R_1, R_2, R_3, R_4 and R_5 are substituted with 0-3 substituents selected from the group consisting of hydroxy, carboxyl, lower alkoxycarbonyl, lower alkyl, nitro, oxo, cyano, carbocyclyl, heterocyclyl, heteroaryl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkanoylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, aryl, aroyl, heterocyclylcarbonyl, halogen and lower alkylphosphonyl; or two of R_1 to R_5 together form a carbocycle or heterocyclic ring;

Y is H, alkoxy, alkoxyalkoxy, aryloxy, alkylaminoalkoxy, dialkylaminoalkoxy, alkylamino, arylamino, heterocyclyl or heteroarylalkyl, where each of the forgoing may be substituted or unsubstituted;

X_1 is H, C(O)OR, C(O)NRaRb, C(O)R, or C(O)SR, wherein R, Ra and Rb, individually, is hydrogen or alkyl, alkoxy, aryl, heterocyclyl, heteroaryl, substituted with 0-4 substituents selected from the group consisting of halogen, hydroxy, amino, carboxyl, nitro, cyano, heterocylyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl, aralkyloxycarbonyl, alkylenedioxy, lower alkoxycarbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, and alkoxy lower alkyl; wherein said heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl and aralkyloxycarbonyl is optionally substituted with halogen, hydroxyl, amino, carboxyl, nitro, cyano, alkyl and alkoxy; and wherein Ra and Rb together with the nitrogen to which they are attached may form a heterocyclyl or heteroaryl group substituted with 0-5 substituents R or Rd; wherein Rd has the structure



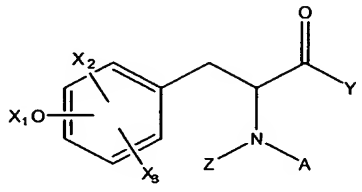
wherein X' is a divalent linker selected from the group consisting of C(O)NRa, C(O) or a bond;

X_2 and X_3 are each independently hydrogen, halogen, hydroxy, amino, carboxyl, nitro, cyano, or substituted or unsubstituted alkyl, aryl, heterocylyl, heteroaryl, aryl, aroyl, aryloxy, alkylenedioxy, lower alkyl carbonylamino, lower alkenyl carbonylamino, aryl carbonylamino, arylalkyl carbonylamino, lower alkoxy carbonylamino, lower alkylamino carbonylamino, arylamino carbonylamino, lower alkoxycarbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, alkoxy lower alkyl; and wherein X_1 and X_2 or X_3 may be bonded together to form a heterocylic or heteroaryl ring(s); or X_3 and Z together form a heterobicyclic ring;

$X_{1'}$, $X_{2'}$, $X_{3'}$ and $X_{4'}$ are each independently hydrogen, halogen, hydroxy, amino, carboxyl, nitro, cyano, or substituted or unsubstituted alkyl, alkenyl, alkynyl, arylalkyl, heterocylyl, heteroaryl, aryl, aroyl, aryloxy, alkylenedioxy, lower alkyl carbonylamino, lower alkenyl carbonylamino, aryl carbonylamino, arylalkyl carbonylamino, lower alkoxy carbonylamino, lower alkylamino carbonylamino, arylamino carbonylamino, lower alkoxycarbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, alkoxy lower alkyl;

or a pharmaceutically acceptable salt thereof.

2. A compound according to claim 1, having the formula:

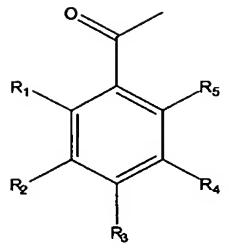


I

wherein

Z is H or lower alkyl;

A has the structure:



in which R_1, R_2, R_3, R_4 and R_5, independently are hydrogen, alkyl, amino, alkylamino, dialkylamino, nitro, cyano, thio, alkylthio, hydroxy, alkoxy, alkoxyalkyl, alkoxycarbonyl, alkylsulfinyl, sulfonyl, alkylsulfonyl, alkanoyl, aryl, arylalkyl, halogen, or alkylphosphonyl, and R_1, R_2, R_3, R_4 and R_5 are substituted with 0-3 substituents selected from the group consisting of hydroxy, carboxyl, lower alkoxycarbonyl, lower alkyl, nitro, cyano, heterocylyl, heteroaryl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, aryl, halogen and lower alkylphosphonyl;

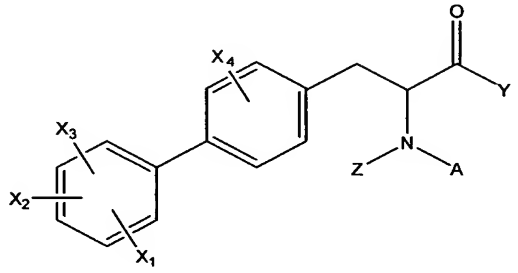
Y is H, alkoxy, alkoxyalkoxy, aryloxy, aminoalkylalkoxy, diaminoalkylalkoxy, alkylamino, arylamino, heterocyclyl or heteroarylalkyl, where each of the forgoing may be substituted or unsubstituted;

X_1 is H, C(O)OR, C(O)NRaRb, C(O)R, or C(O)SR, wherein R, Ra and Rb, individually, is hydrogen or alkyl, aryl, heterocyclyl, heteroaryl, substituted with 0-4 substituents selected from the group consisting of halogen, hydroxy, amino, carboxyl, nitro, cyano, heterocylyl, heteroaryl, aryl, aroyl, aryloxy, alkylenedioxy, lower alkoxycarbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, alkoxy lower alkyl; and wherein Ra and Rb together with the nitrogen to which they are attached may form a heterocyclyl or heteroaryl group substituted with 0-4 substituents R;

X_2 and X_3 are each independently hydrogen, halogen, hydroxy, amino, carboxyl, nitro, cyano, or substituted or unsubstituted alkyl, aryl, heterocylyl, heteroaryl, aryl, aroyl, aryloxy, alkylenedioxy, lower alkyl carbonylamino, lower alkenyl carbonylamino, aryl carbonylamino, arylalkyl carbonylamino, lower alkoxy carbonylamino, lower alkylamino carbonylamino, arylamino carbonylamino, lower alkoxycarbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower

alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, alkoxy lower alkyl; and wherein X_1 and X_2 or X_3 may be bonded together to form a heterocylic or heteroaryl ring(s);

or

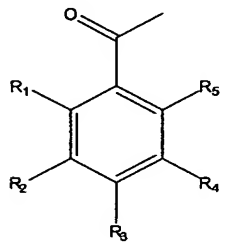


II

wherein

Z is H or lower alkyl;

A has the structure:



in which R_1, R_2, R_3, R_4 and R_5, independently are hydrogen, alkyl, amino, alkylamino, dialkylamino, nitro, cyano, thio, alkylthio, hydroxy, alkoxy, alkoxyalkyl, alkoxycarbonyl, alkylsulfinyl, sulfonyl, alkylsulfonyl, alkanoyl, aryl, arylalkyl, halogen, or alkylphosphonyl, and R_1, R_2, R_3, R_4 and R_5 are substituted with 0-3 substituents selected from the group consisting of hydroxy, carboxyl, lower alkoxycarbonyl, lower alkyl, nitro, cyano, heterocylyl, heteroaryl, lower

alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, aryl, halogen and lower alkylphosphonyl;

Y is H, alkoxy, alkoxyalkoxy, aryloxy, aminoalkylalkoxy, diaminoalkylalkoxy, alkylamino, arylamino, heterocyclyl or heteroarylalkyl, where each of the forgoing may be substituted or unsubstituted;

X_1, X_2 and X_3 are each independently hydrogen, halogen, hydroxy, amino, carboxyl, nitro, cyano, or substituted or unsubstituted alkyl, alkenyl, alkynyl, arylalkyl, heterocylyl, heteroaryl, aryl, aroyl, aryloxy, alkylenedioxy, lower alkyl carbonylamino, lower alkenyl carbonylamino, aryl carbonylamino, arylalkyl carbonylamino, lower alkoxy carbonylamino, lower alkylamino carbonylamino, arylamino carbonylamino, lower alkoxycarbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, alkoxy lower alkyl; or a pharmaceutically acceptable salt thereof.

3. The compound of claim 2 having structure I.

4. The compound of claim 2, having structure II.

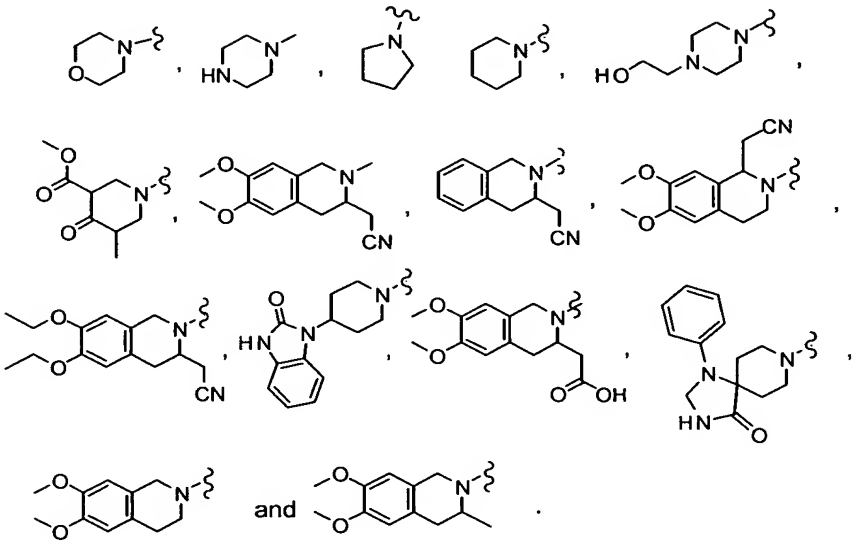
5. The compound of one of claims 2, wherein X_1 X_2, X_3 are each independently H, alkyl, alkenyl, alkynyl, aryl, arylalkyl, heterocylyl, or heteroaryl.

6. The compound of claim 5, wherein X_1 is C(O)OR, C(O)R, or C(O)SR.

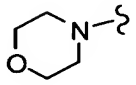
7. The compound of claim 5, wherein X_1 is C(O)NRaRb.

8. The compound of claim 5, wherein X_1 is C(O)NRaRb and wherein Ra and Rb together with the nitrogen to which they are attached form a 5-membered or 6-membered heterocyclyl or heteroaryl group substituted with 0-4 substituents R.

9. The compound of claim 7, wherein X_1 is a member selected from the group consisting of

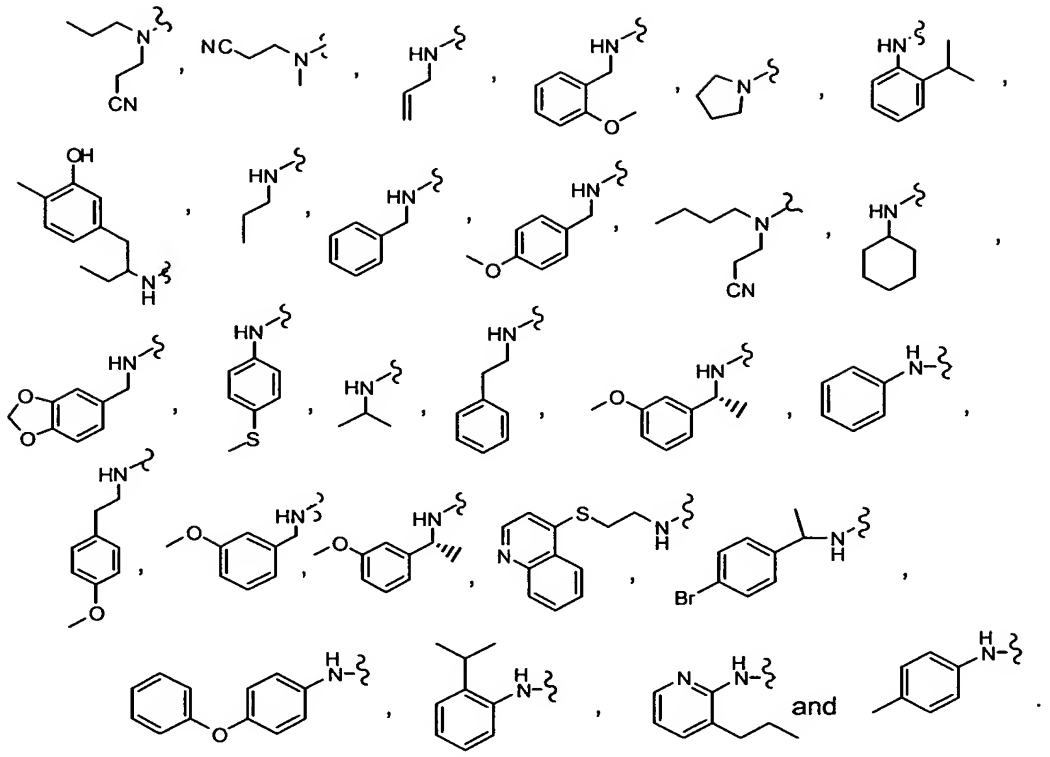


10. The compound of claim 9, wherein X_1 is



11. The compound of claim 7, wherein X_1 is C(O)NRaRb and wherein Ra and Rb are independently hydrogen, substituted or unsubstituted alkyl, aryl, heterocyclyl, or heteroaryl.

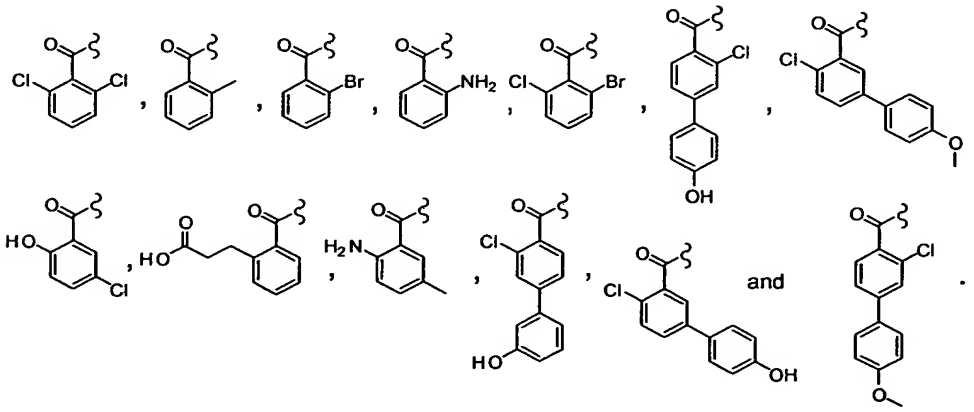
12. The compound of claim 11, wherein X_1 is a member selected from the group consisting of



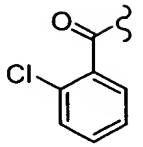
13. The compound of claim 11, wherein R_1, R_5 or both are not hydrogen.

14. The compound of claim 1, wherein X_2, X_3, Z or a combination thereof are hydrogen.

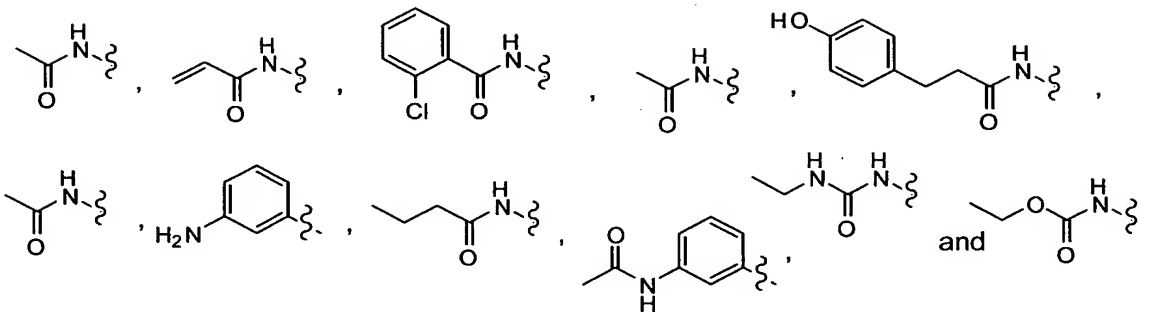
15. The compound of claim 1, wherein A is selected from the group consisting of



16. The compound of claim 1, wherein A is



17. The compound of claim 1, wherein X_2 is a member selected from the group consisting of



18. The compound of claim 1, wherein the compound has S stereochemical configuration.

19. A composition, comprising the compound of claim 1 and a carrier or excipient.

20. A medicament, comprising the compound of claim 1 and a therapeutically inert carrier or excipient.

21. A medicament for treating a disease or condition associated with binding of alpha4beta7 to MAdCAM-1 or alpha4beta1 to VCAM-1, comprising the compound of claim 1 and a therapeutically inert carrier or excipient.

22. A medicament for treating rheumatoid arthritis, asthma, psoriasis, multiple sclerosis, inflammatory bowel disease, ulcerative colitis, pouchitis, Crohn's disease, Celiac disease, nontropical Sprue, graft-versus-host disease, pancreatitis, insulin-dependent diabetes mellitus, mastitis, cholecystitis, pericholangitis, chronic sinusitis, chronic bronchitis, pneumonitis, collagen disease, eczema or systemic lupus erythematosis, comprising the compound of claim 1 and a therapeutically inert carrier or excipient.

23. A method for treating a disease or condition associated with binding of alpha4beta7 to MAdCAM-1 or alpha4beta1 to VCAM-1, comprising administering an effective amount of the compound of claim 1 to a mammal in need thereof.

24. A method for treating rheumatoid arthritis, asthma, psoriasis, multiple sclerosis, inflammatory bowel disease, ulcerative colitis, pouchitis, Crohn's disease, Celiac disease, nontropical Sprue, graft-versus-host disease, pancreatitis, insulin-dependent diabetes mellitus, mastitis, cholecystitis, pericholangitis, chronic sinusitis, chronic bronchitis, pneumonitis, collagen disease, eczema or systemic lupus erythematosis, comprising administering an effective amount of the compound of claim 1 to a mammal in need thereof.